

FIG. 1

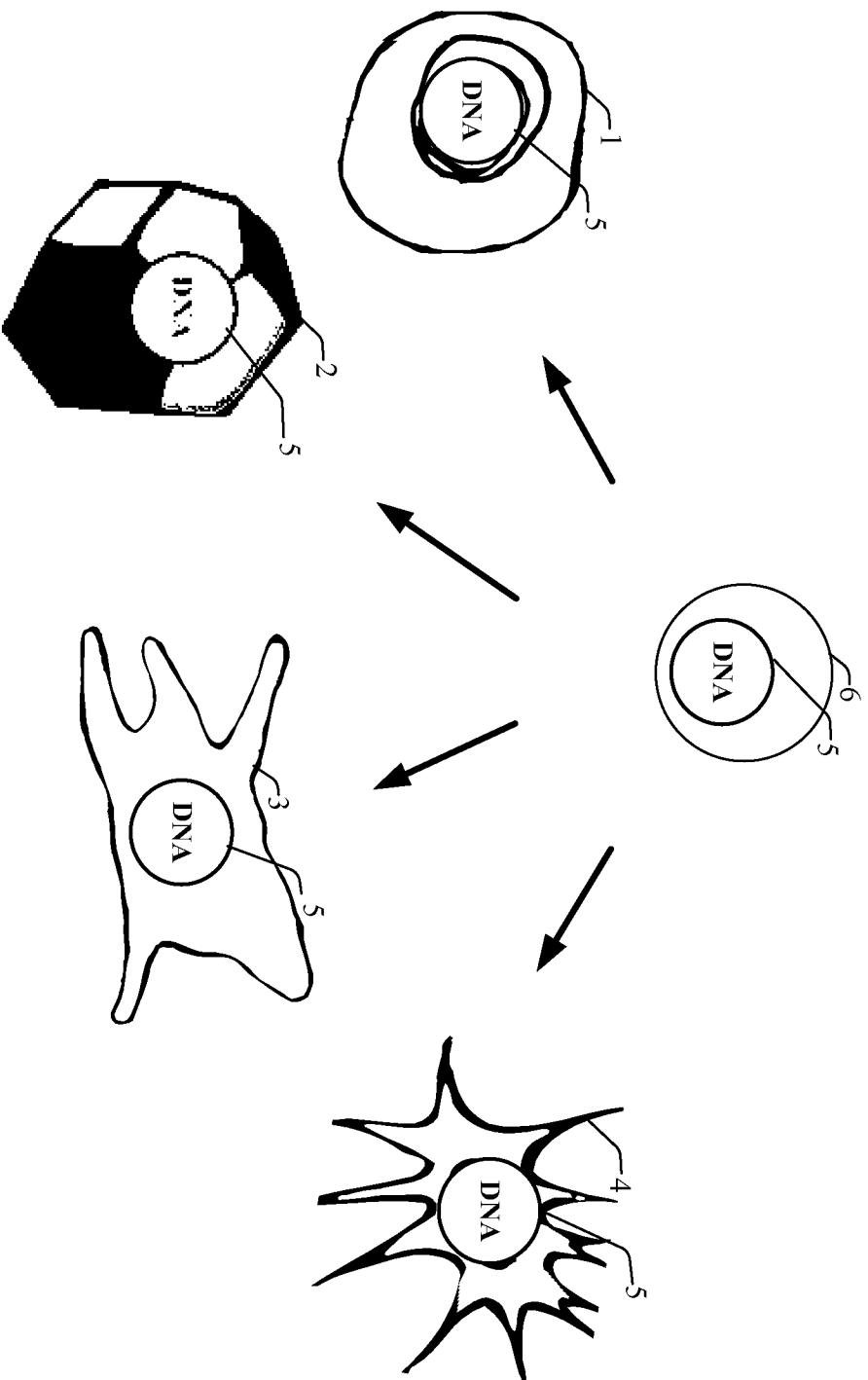


FIG. 2A

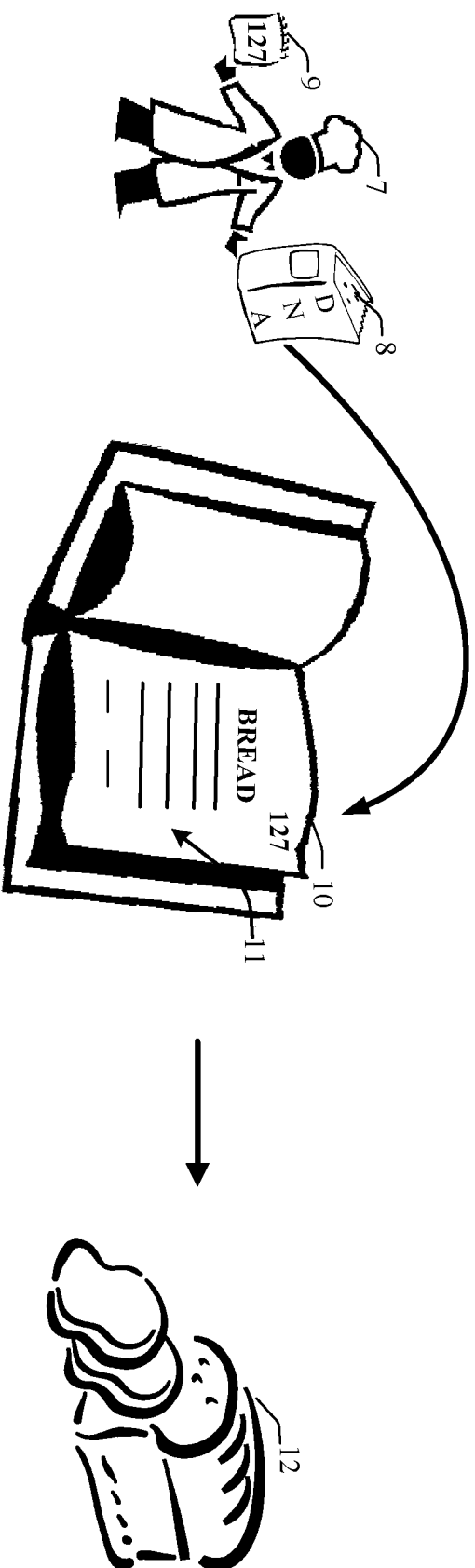


FIG. 2B

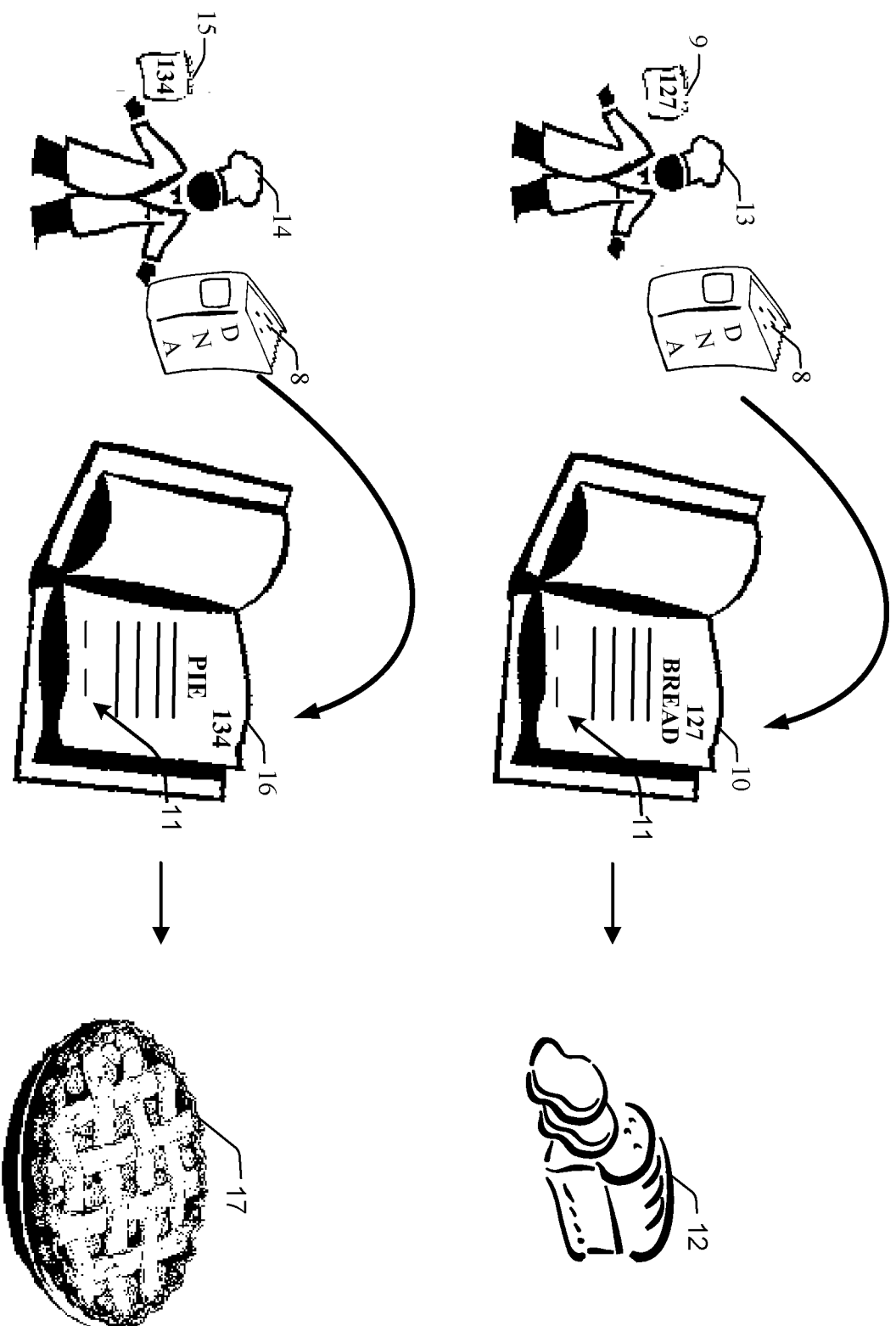


FIG. 3

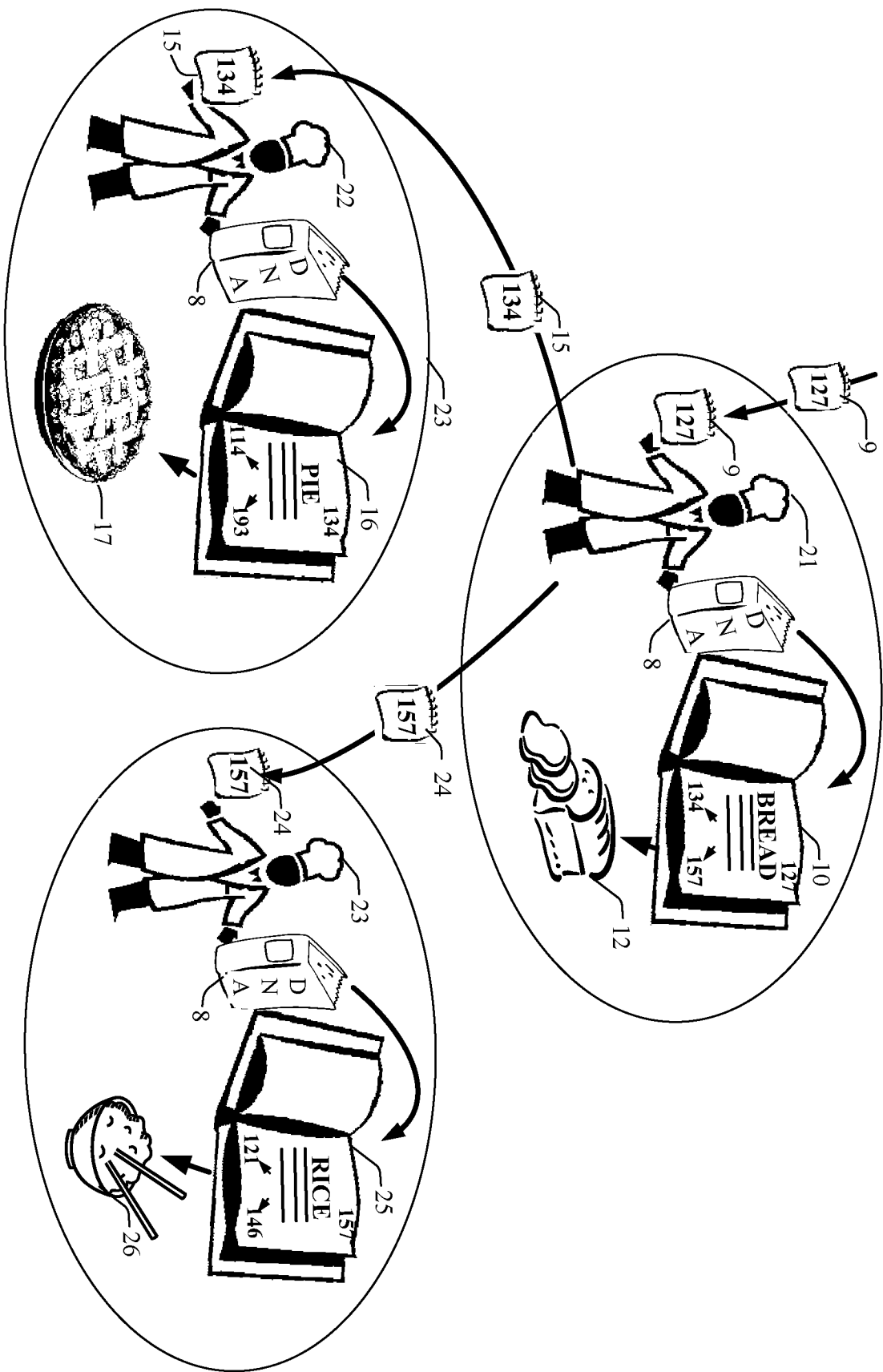


FIG. 4

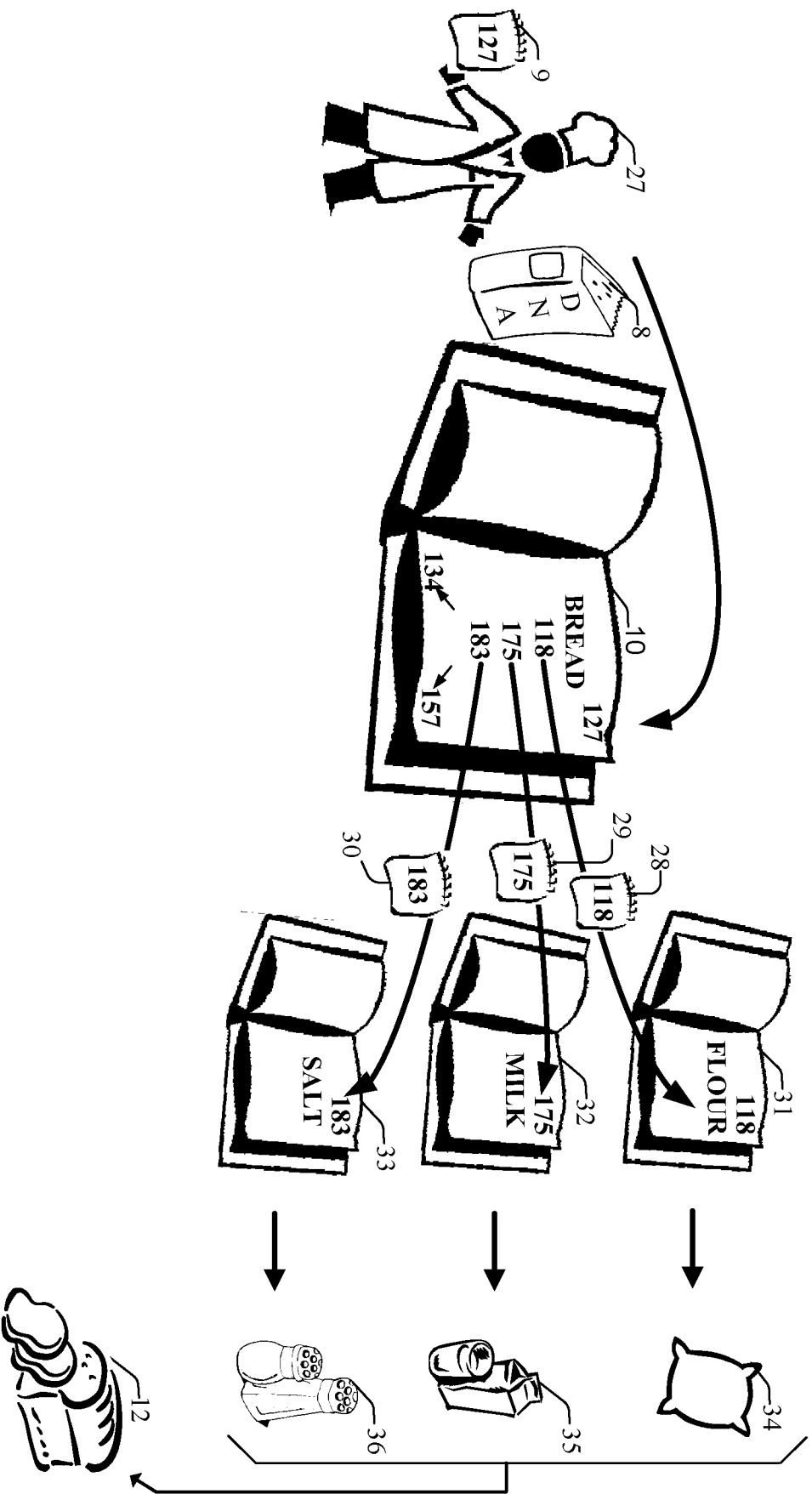
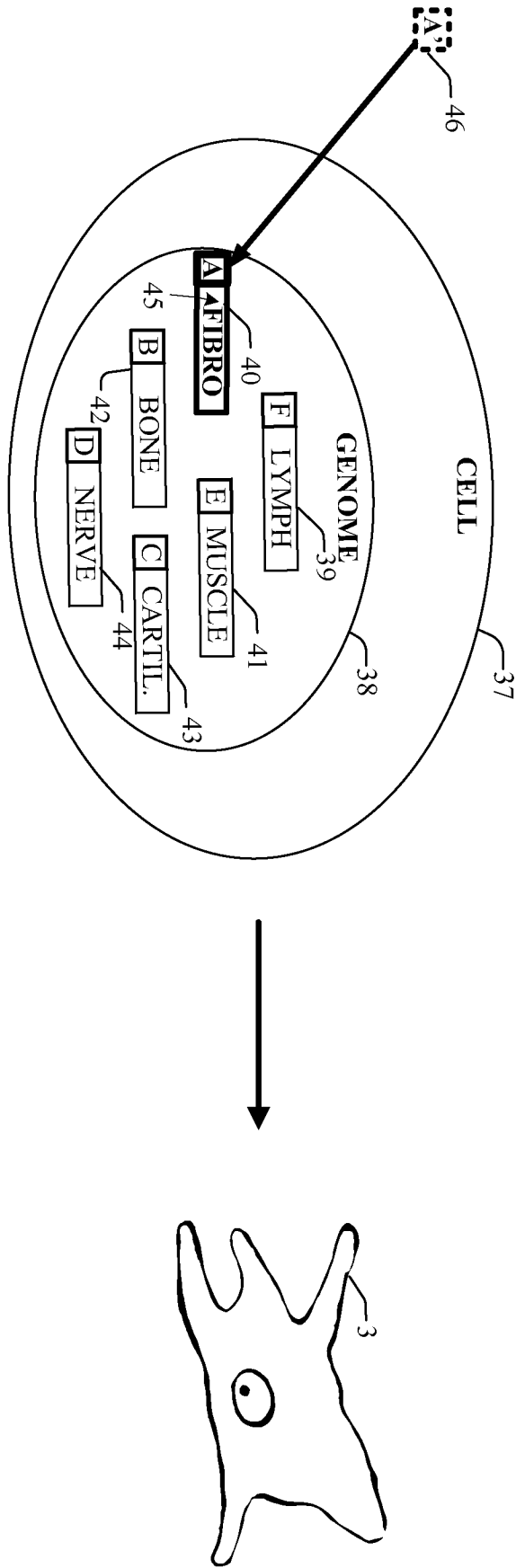


FIG. 5A



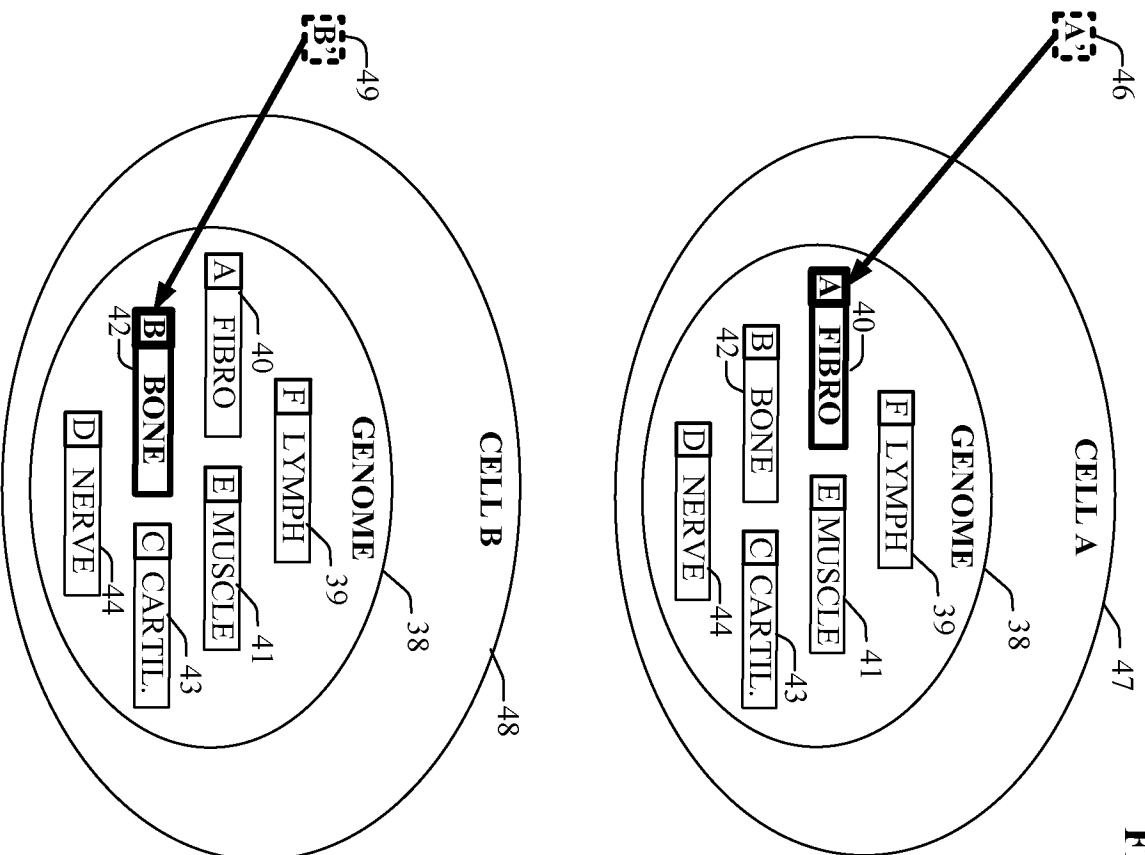


FIG. 5B

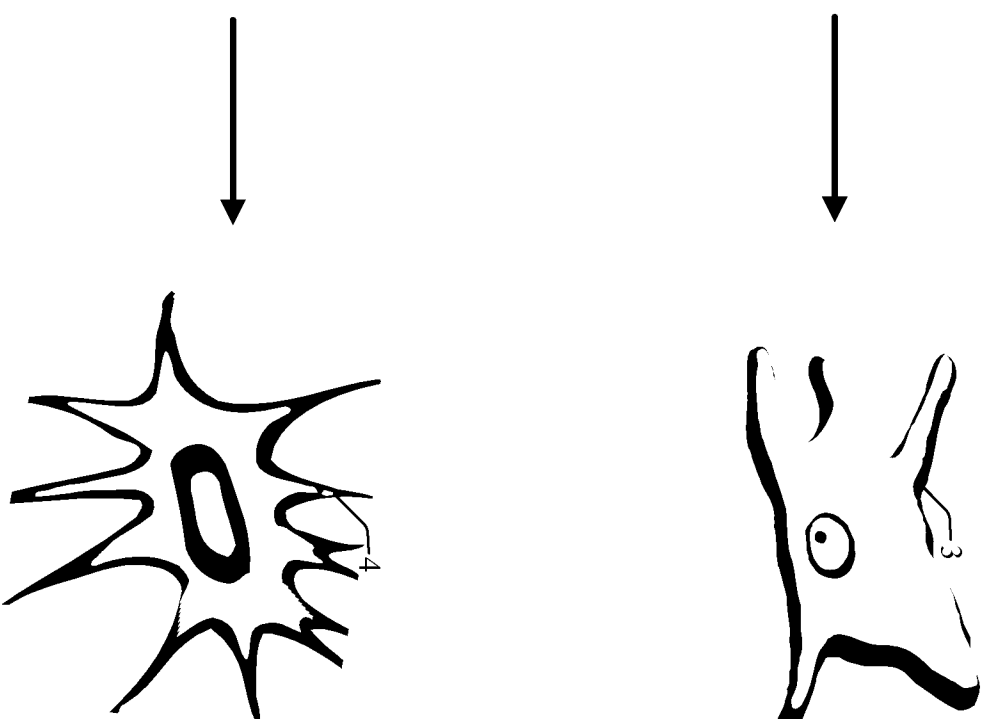
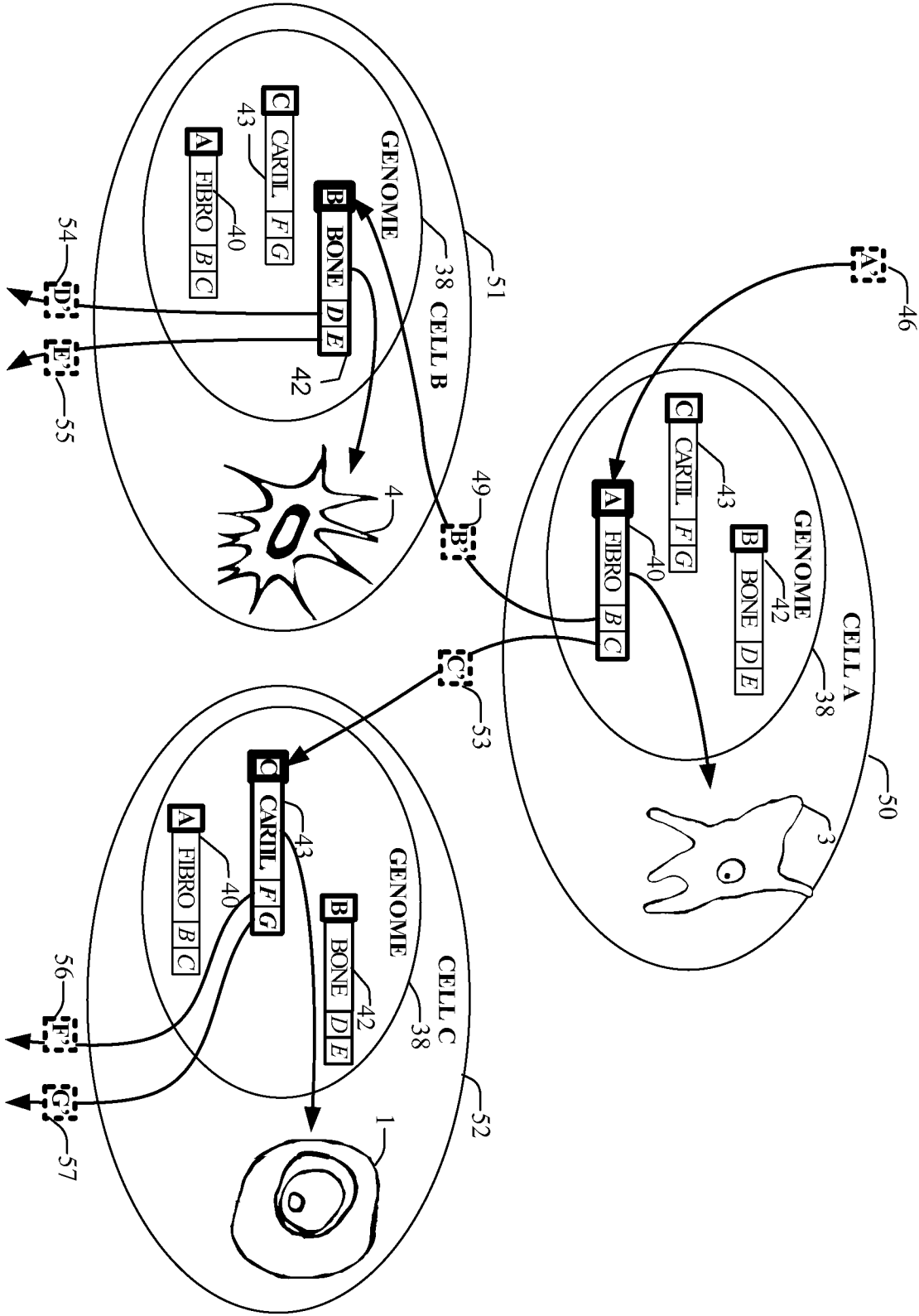


FIG. 6



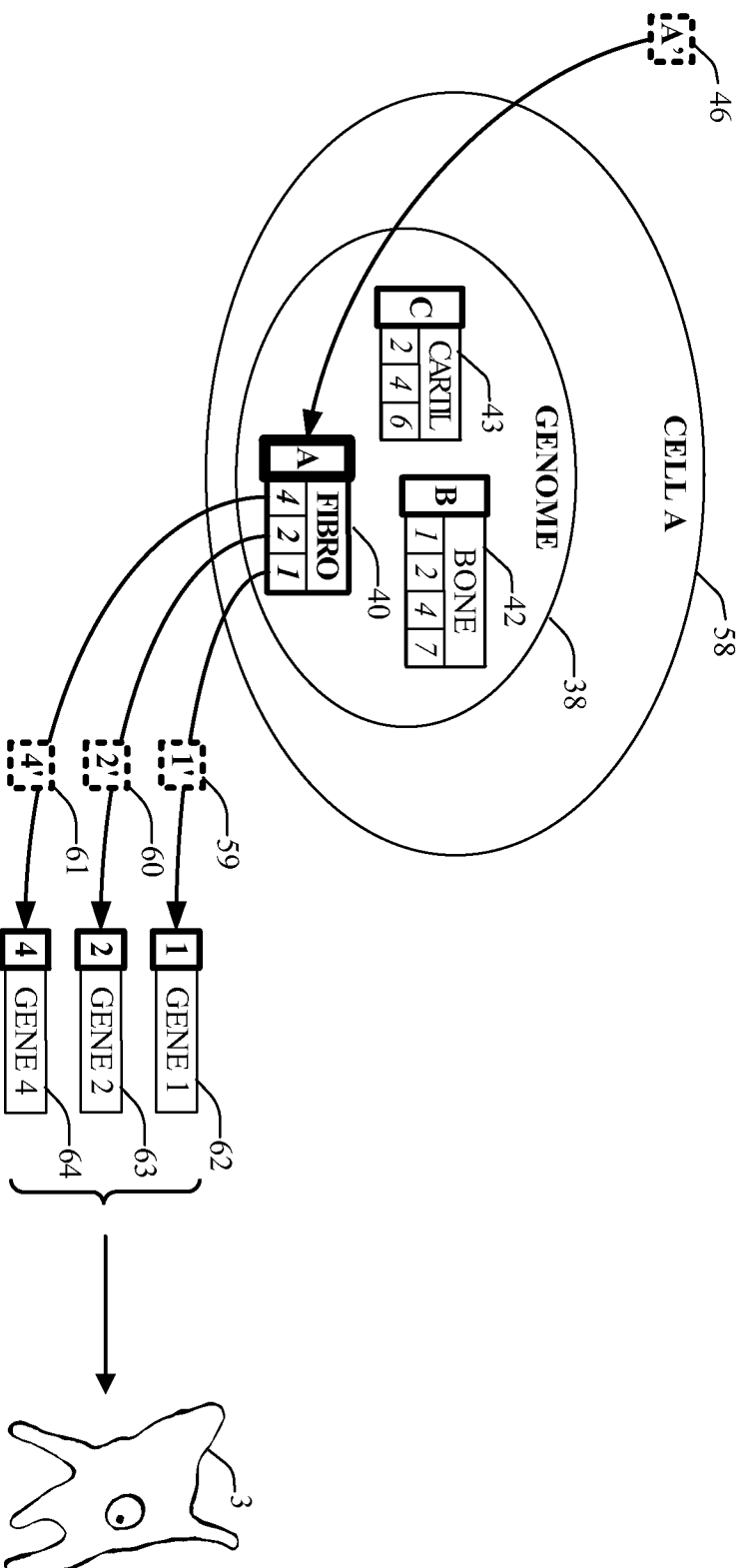
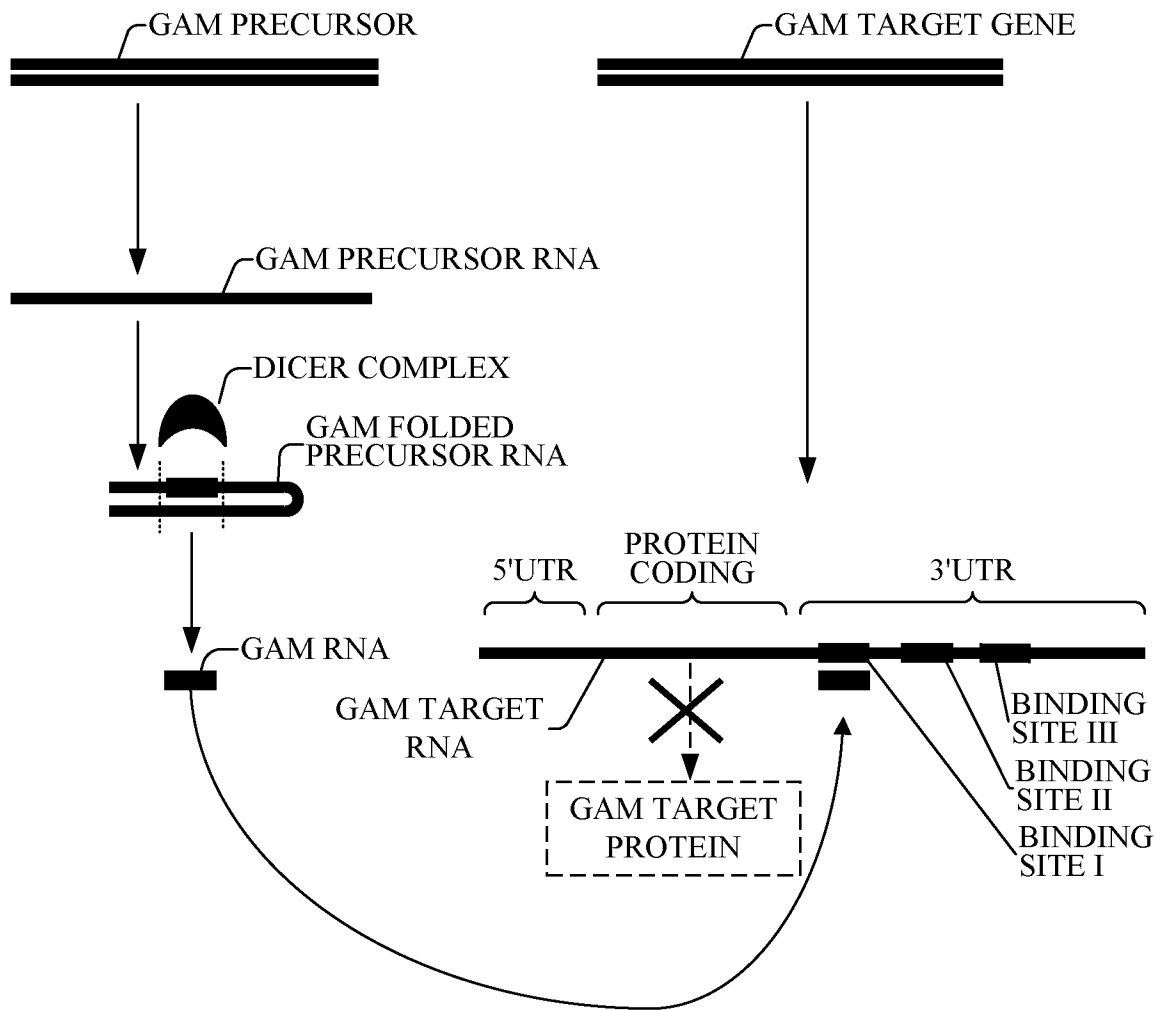
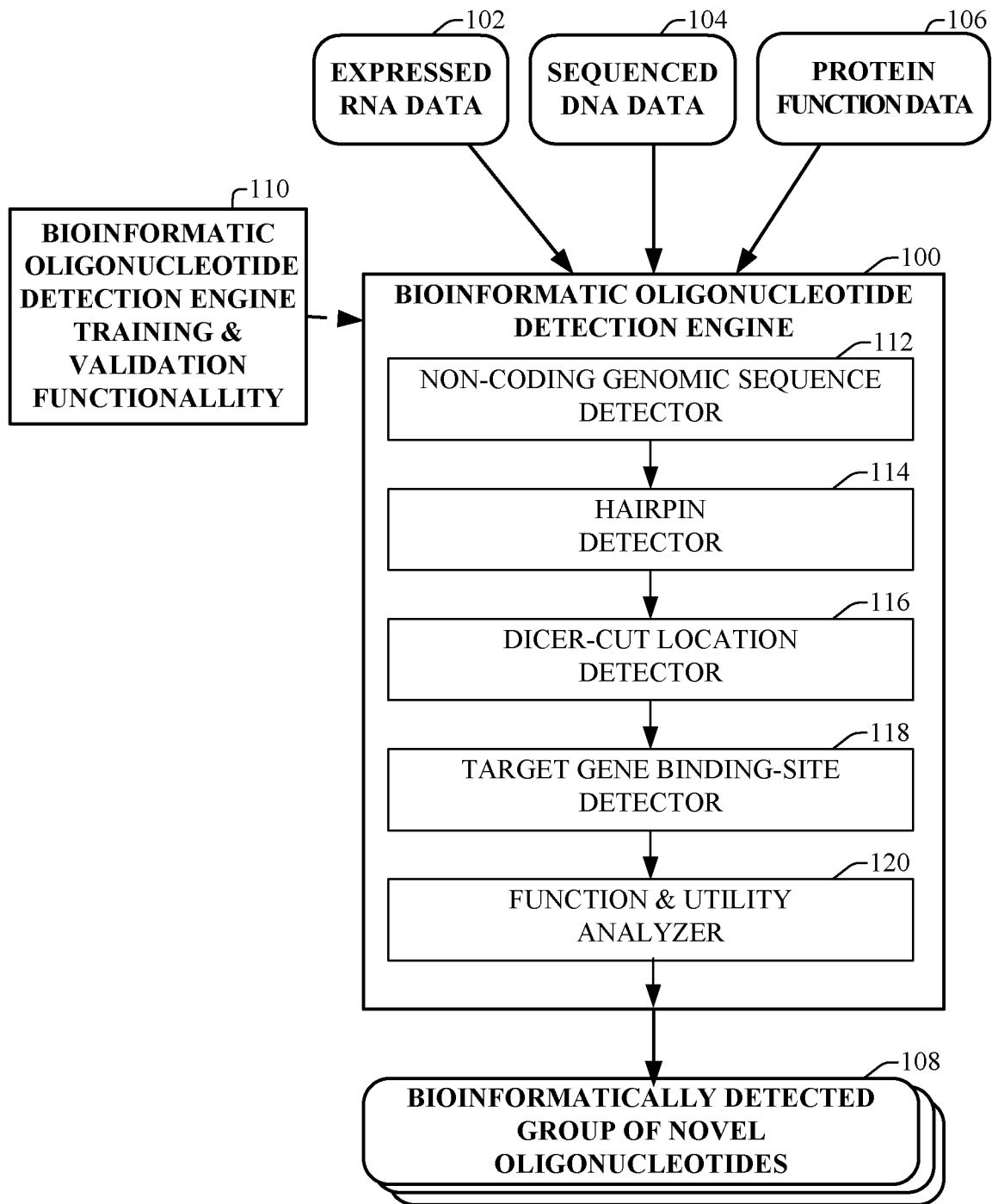


FIG. 7

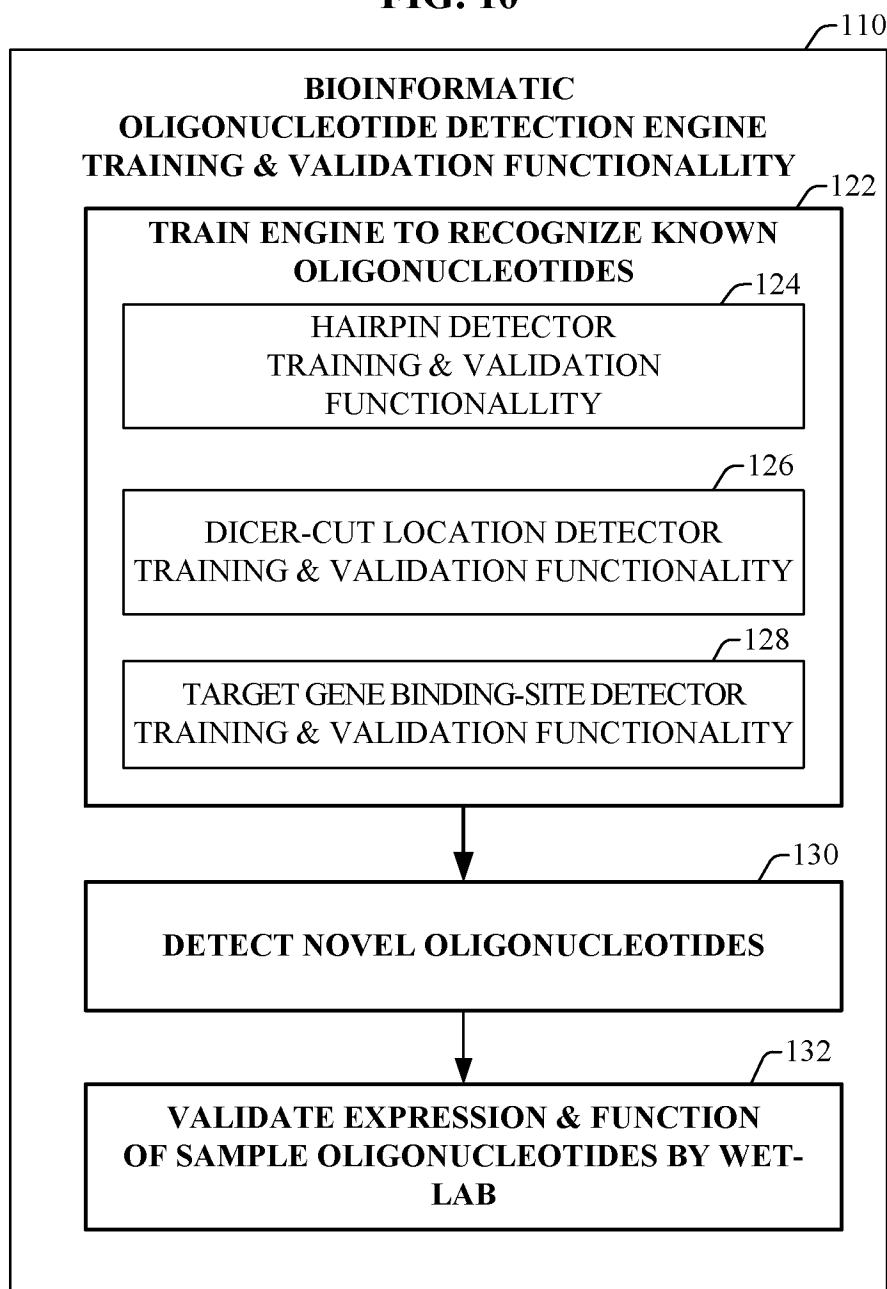
**FIG. 8**



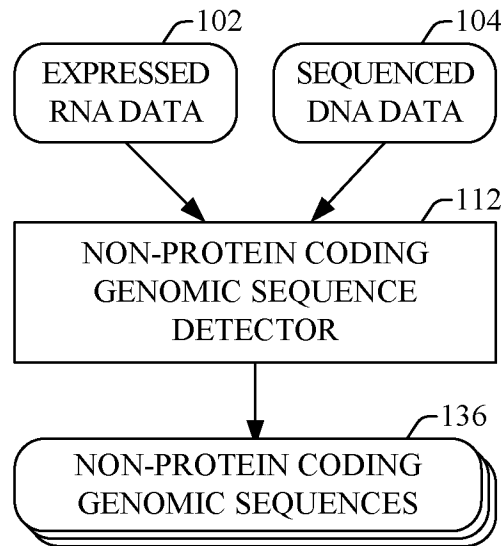
**FIG. 9**



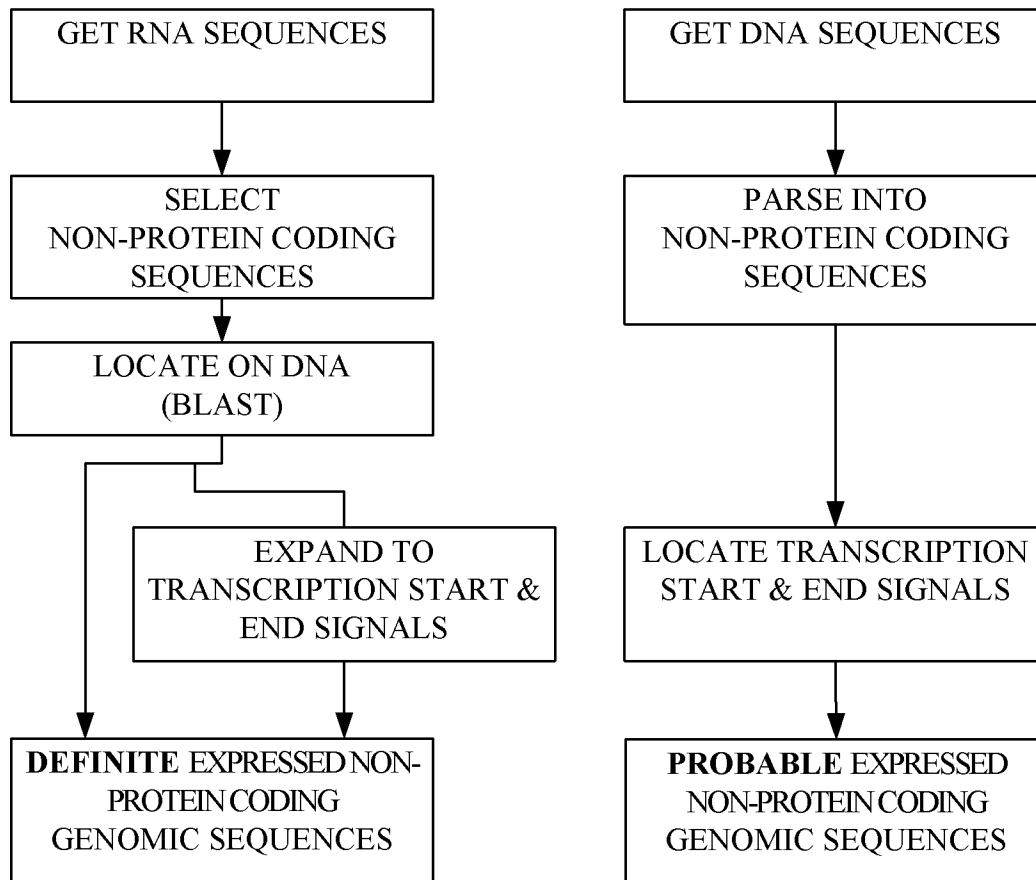
**FIG. 10**



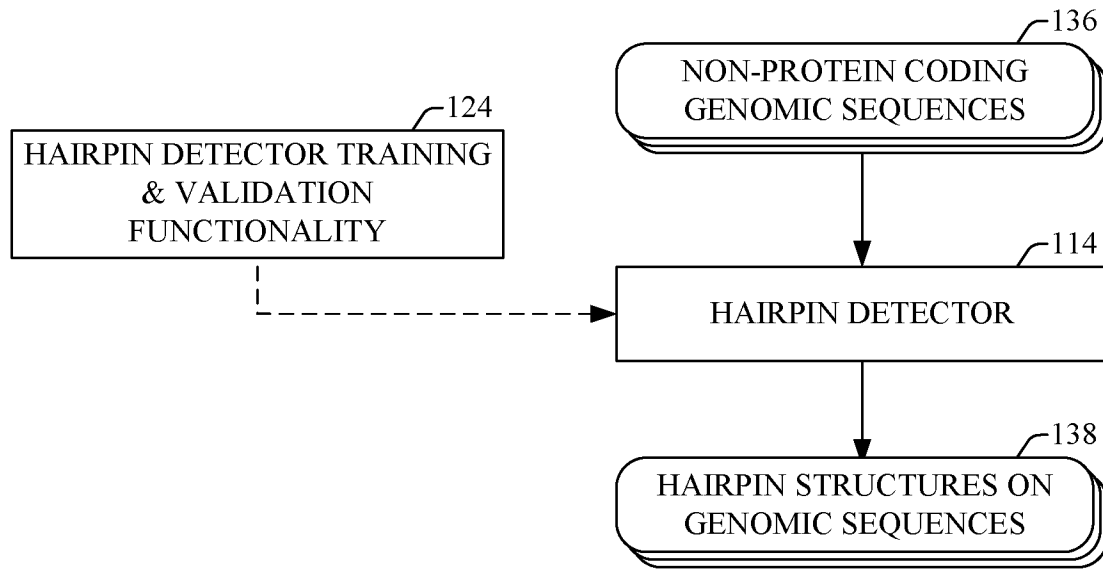
**FIG. 11A**



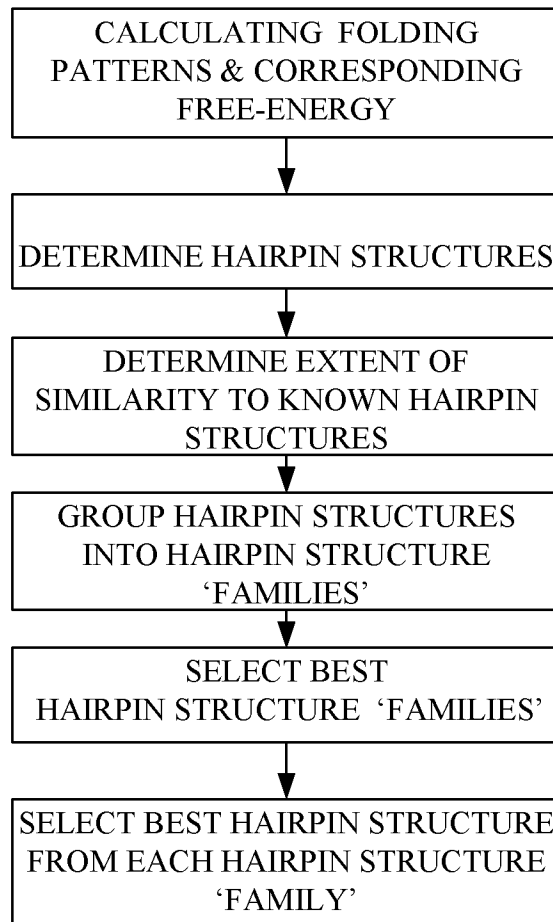
**FIG. 11B**



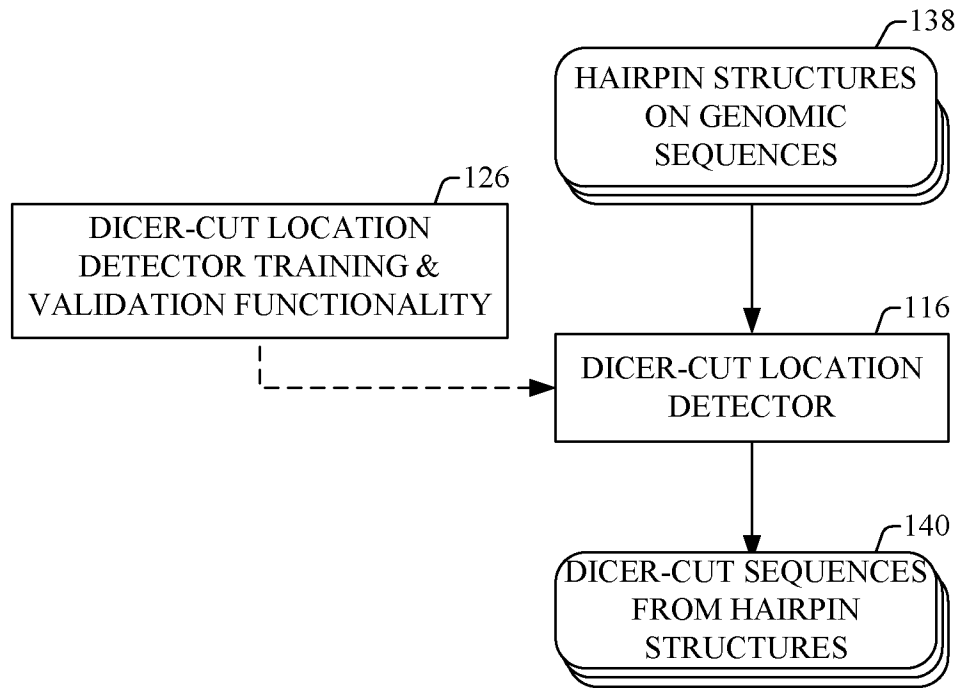
**FIG. 12A**



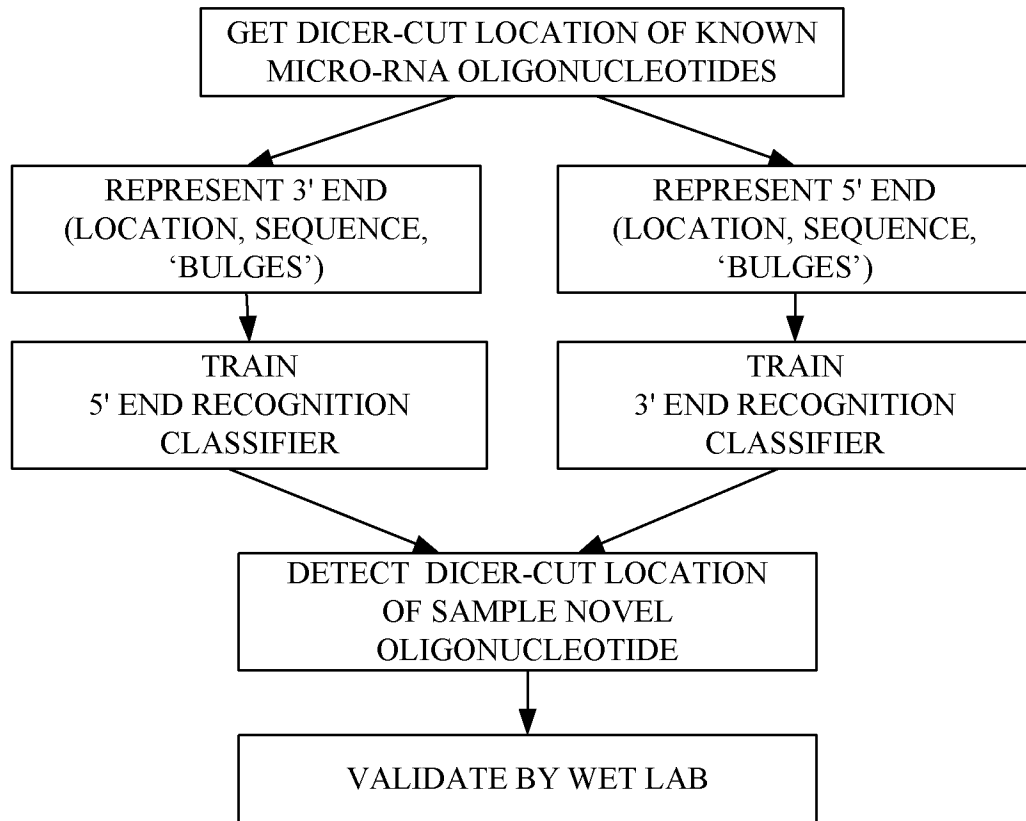
**FIG. 12B**



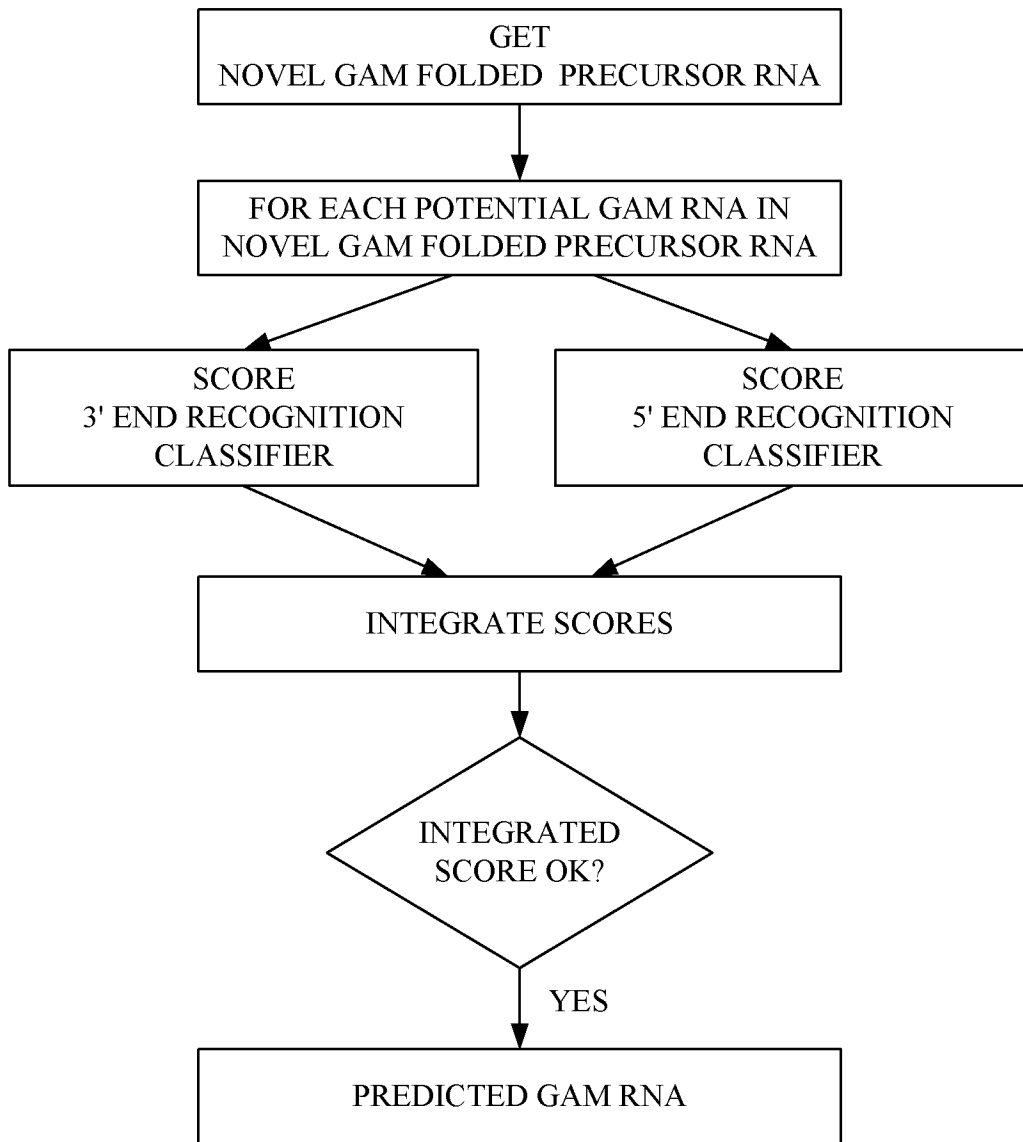
**FIG. 13A**



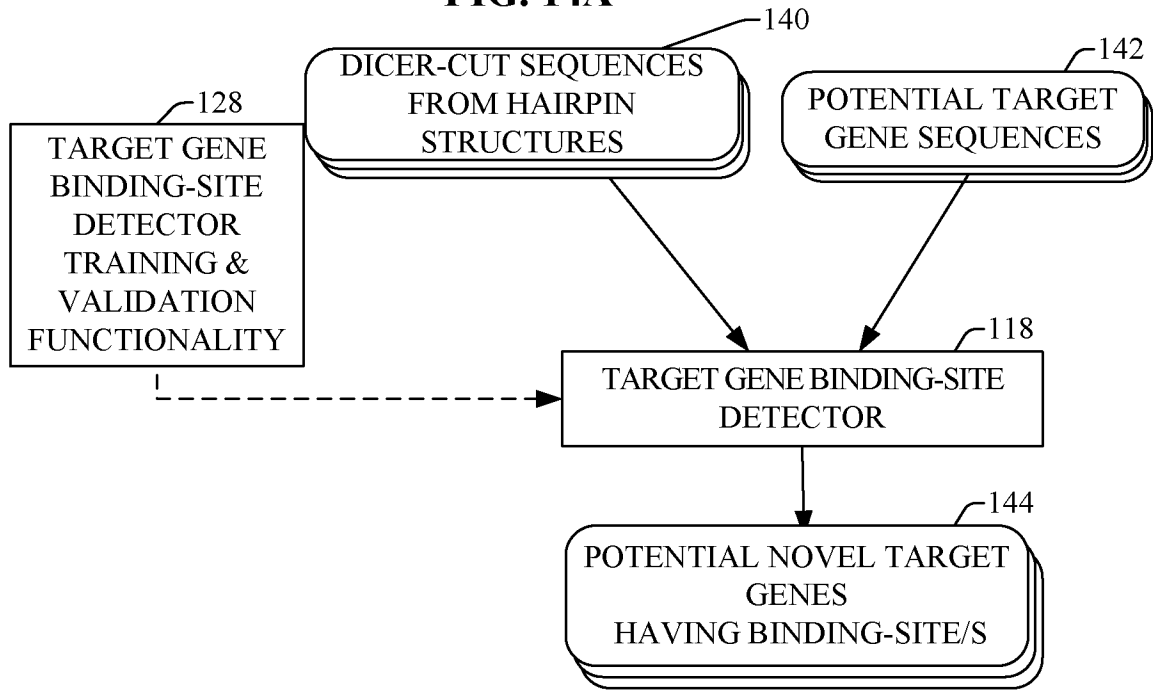
**FIG. 13B**



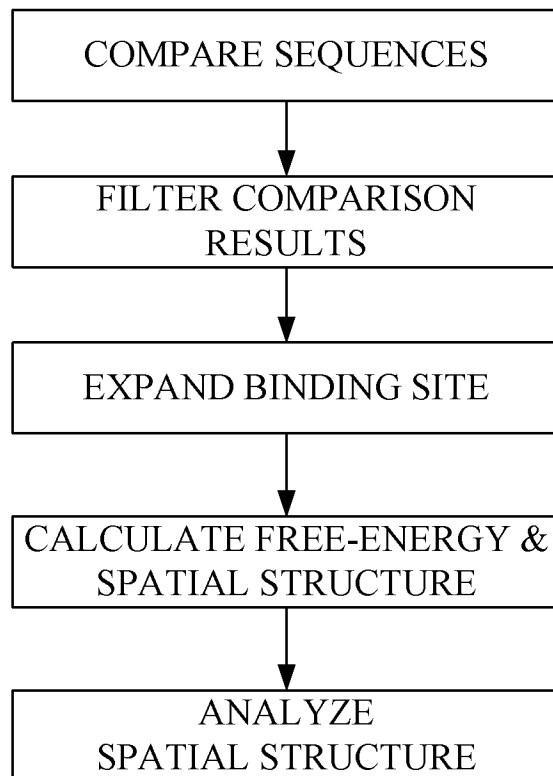
**FIG. 13C**



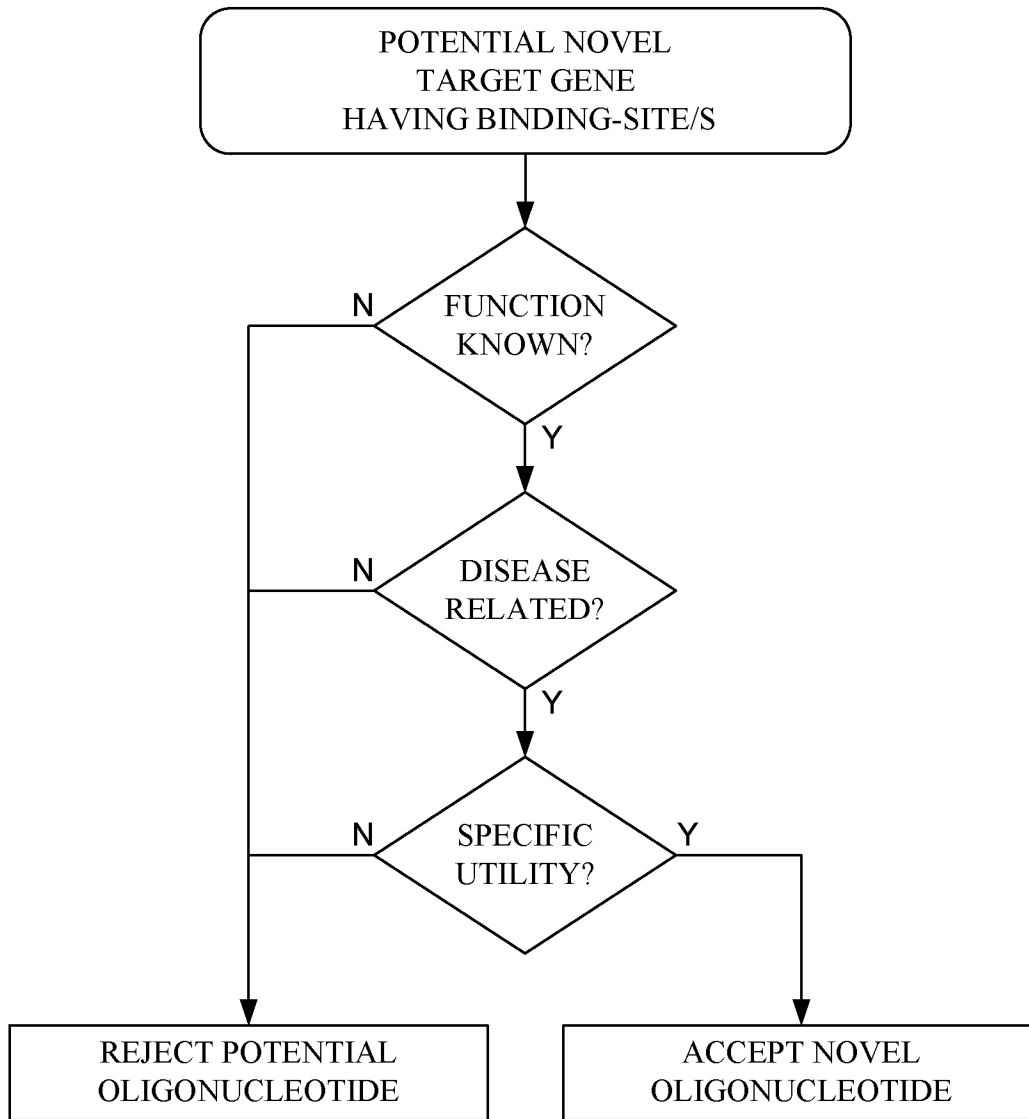
**FIG. 14A**



**FIG. 14B**



**FIG. 15**



**FIG. 16**

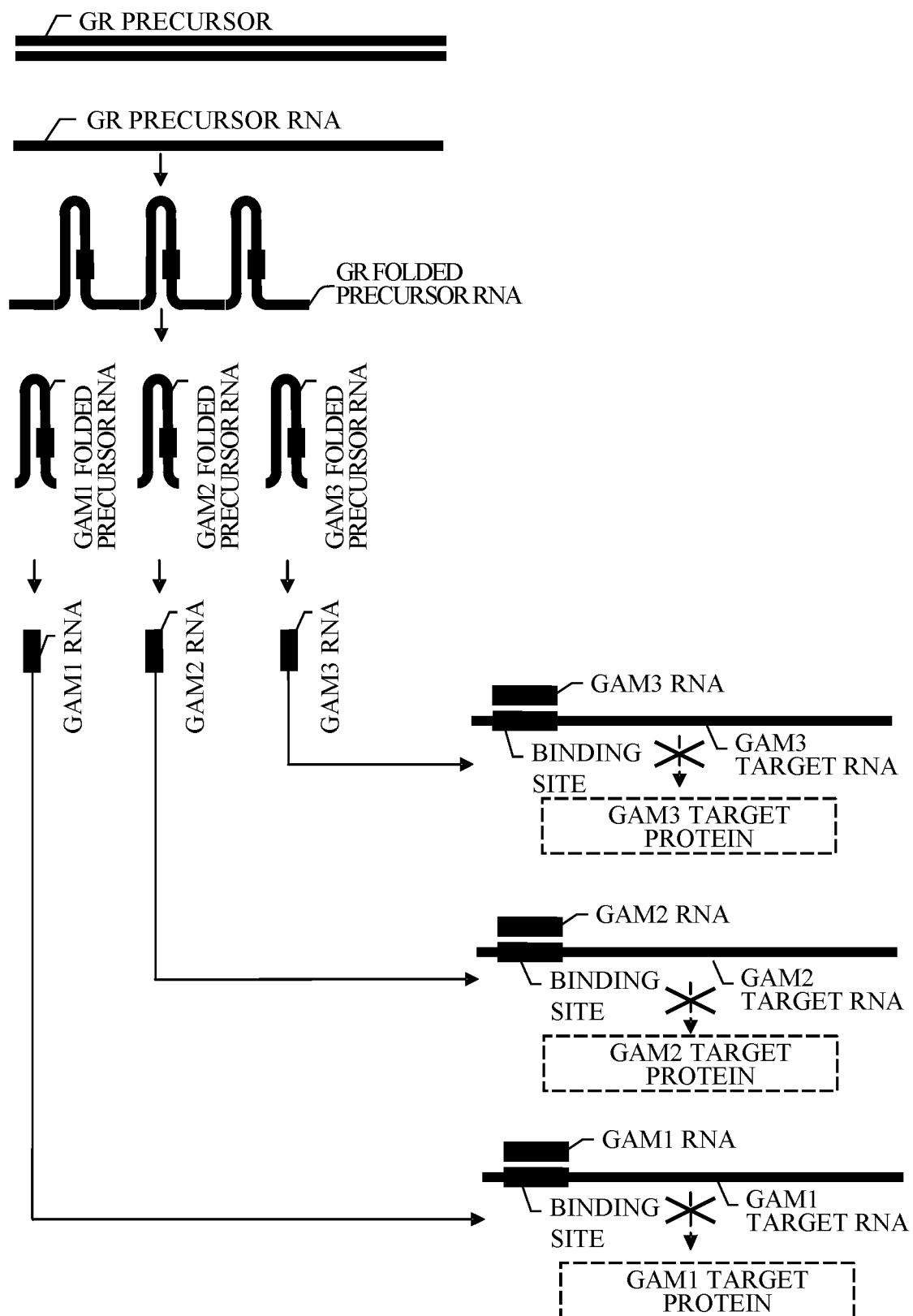
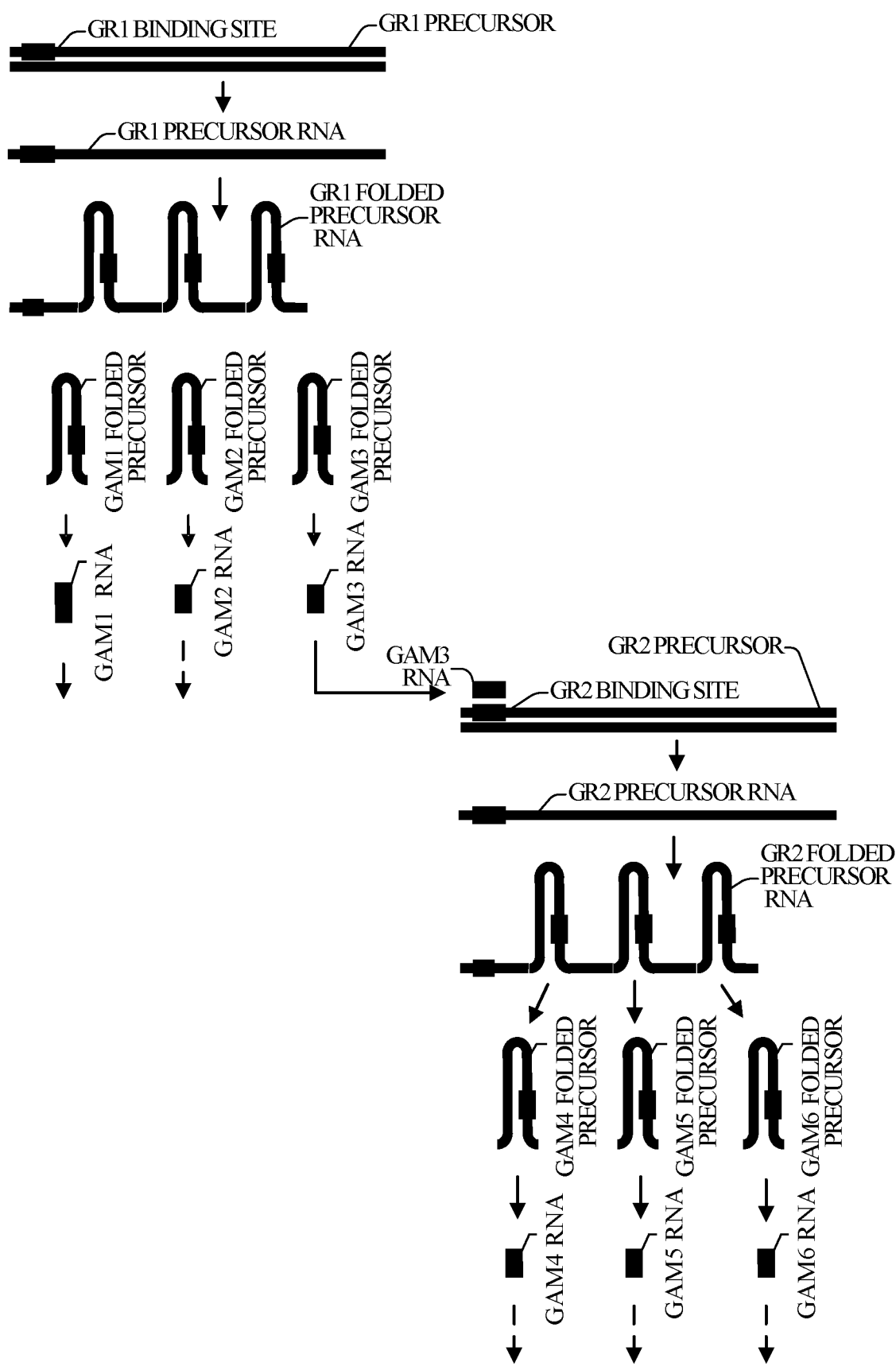
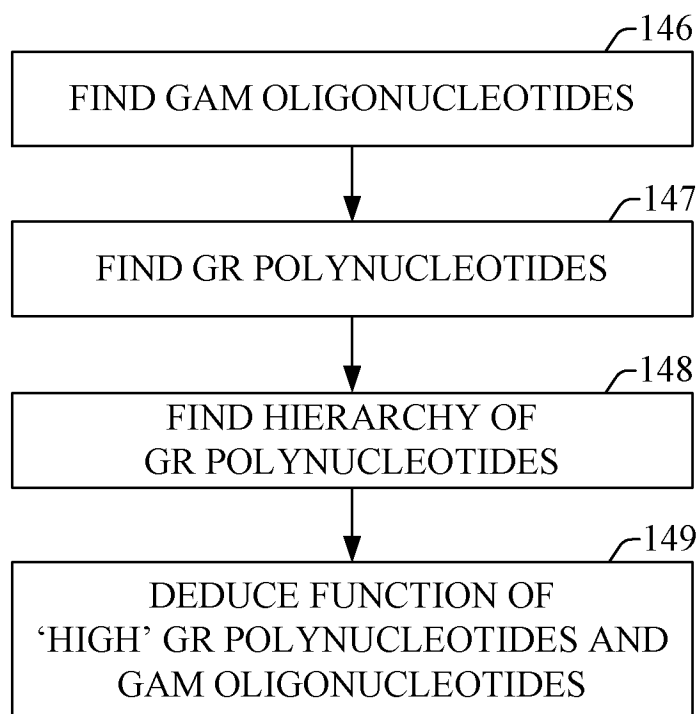


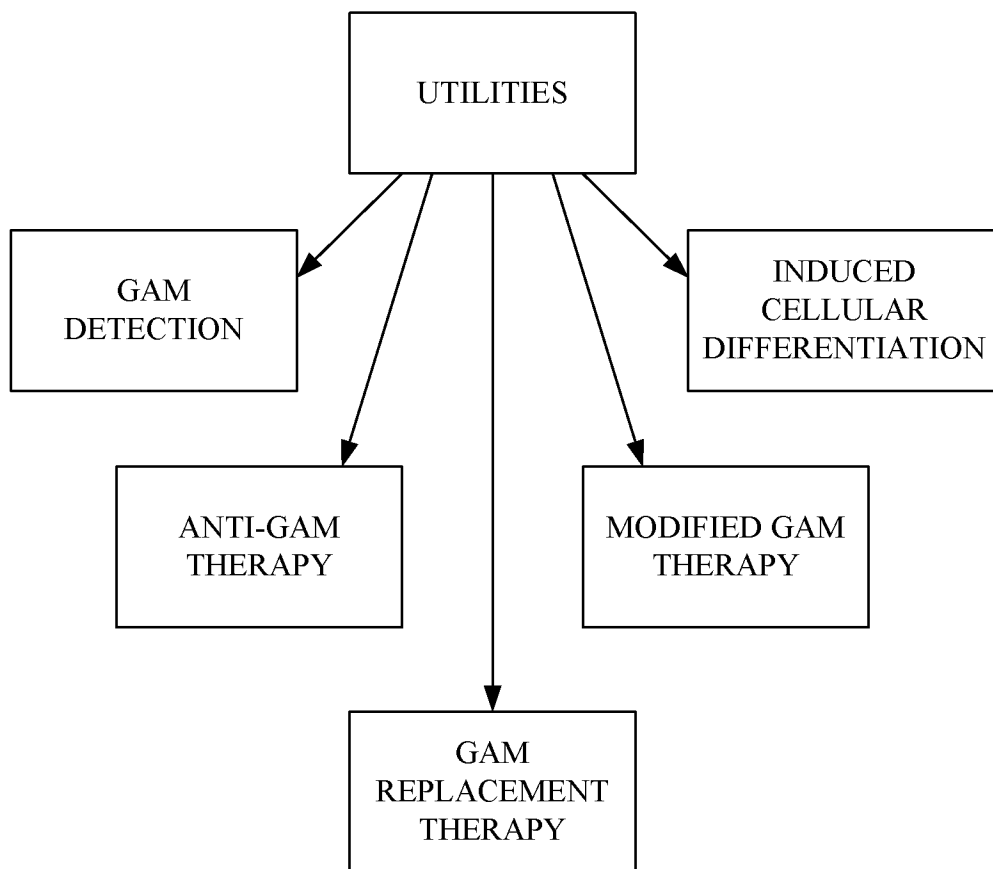
FIG. 17



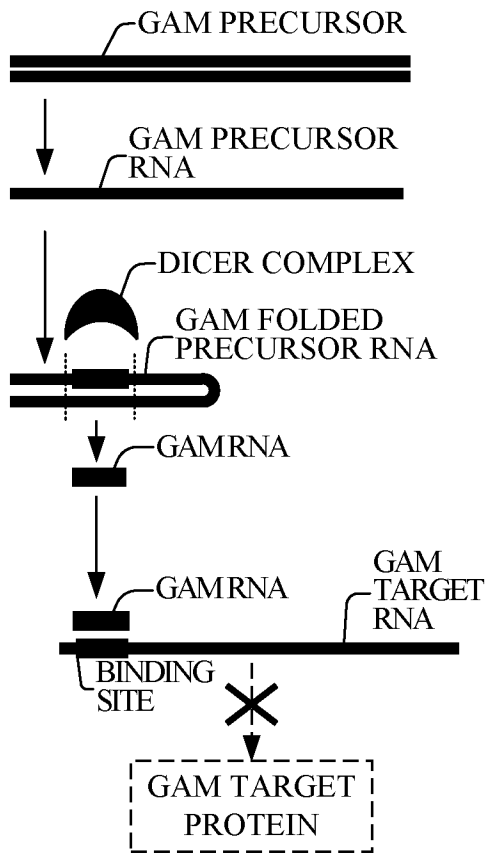
**FIG. 18**



**FIG. 19**



**FIG. 20A**



**FIG. 20B**

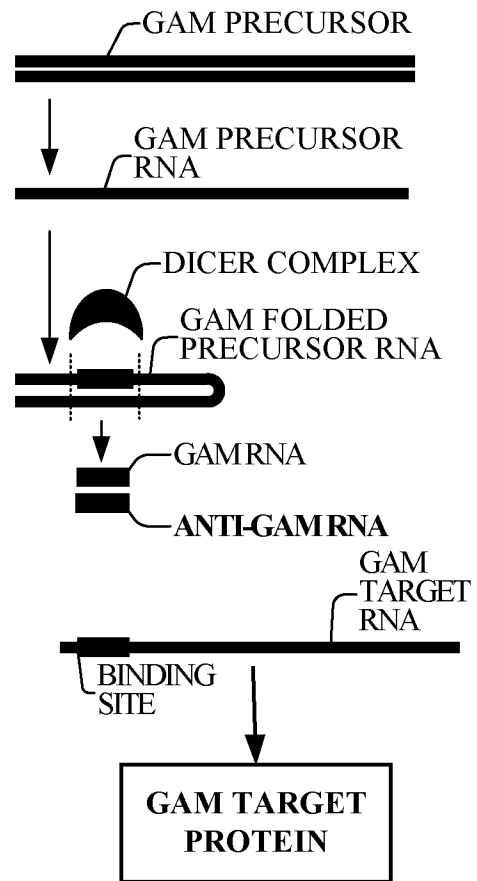
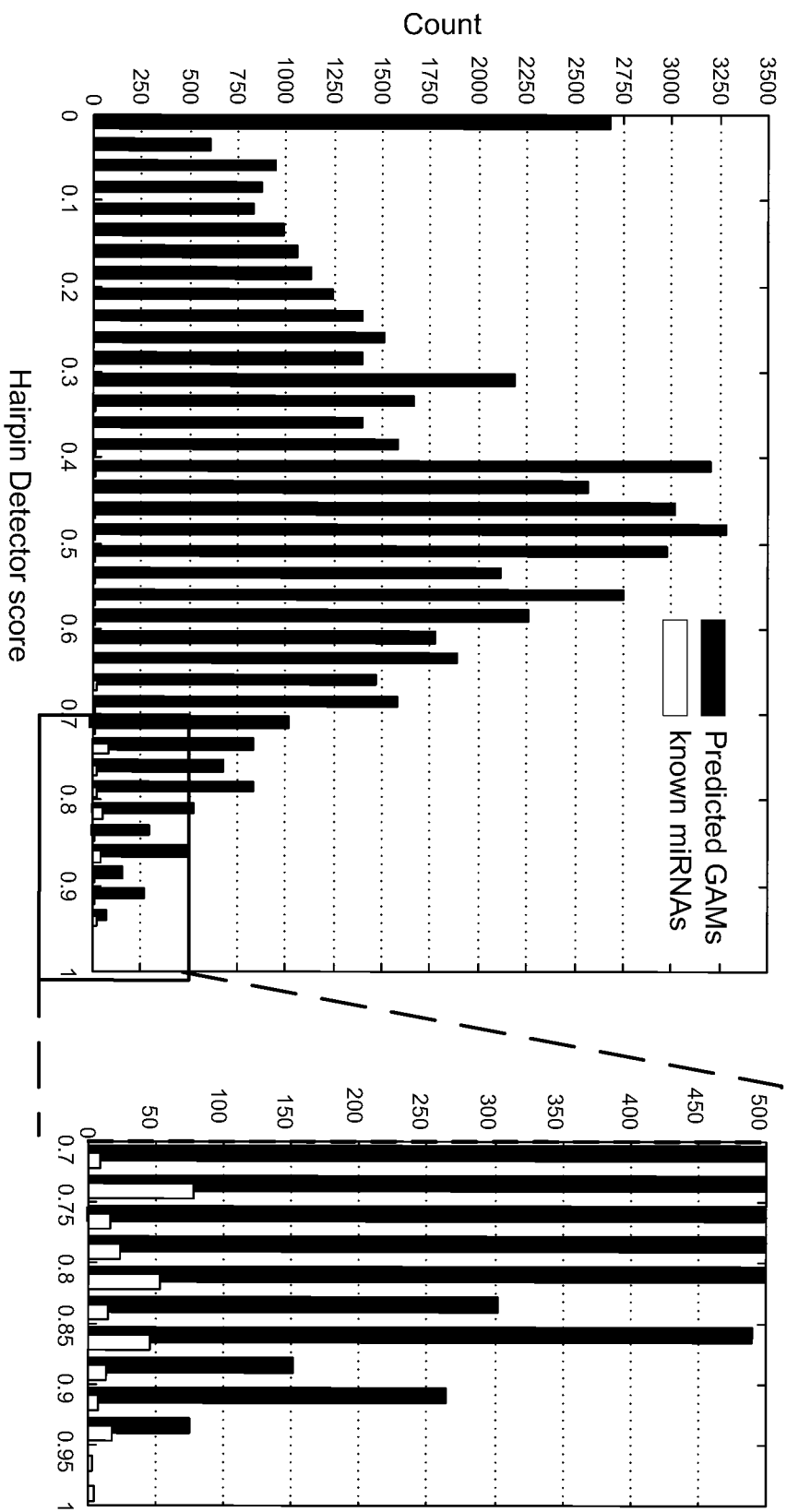


FIG.21A



**FIG. 21B**

<b>GAM Detection Group</b>	<b>Published Hairpins Detection</b>	<b>Background Hairpins Filtering</b>	<b>Lab Validation of Human GAMs</b>		
			<b>Sent</b>	<b>Positive</b>	<b>% Success</b>
<b>A</b>	382	~2850000 (95 %)	101	37	37%
<b>Overall</b>	440	~3000000	168	52	31%

**FIG. 22A**



**FIG. 22B**

NUMBER	NAME	SEQUENCE (5 TO 3)	SEQUENCED
1	hsa-miR-21	TAGCTTATCAGACTGATGTTGA	+
2	hsa-miR-27b	TTCACAGTGGCTAAGTTCTGCA	+
3	hsa-miR-186	AAAGAATTCTCCTTTTGGGCTT	+
4	hsa-miR-93	AAGTGCTGTTTCGTGCAGGTAGT	+
5	hsa-miR-26a	TCAAGTAATCCAGGATAGGCTG	+
6	hsa-miR-191	AACGGAATCCCAAAAGCAGCTG	+
7	hsa-miR-31	GGCAAGATGCTGGCATAGCTGT	+
8	hsa-miR-92	TATTGCACTTGTCCTGGCCTGT	+
9	GAM3418-A	ATCACATTGCCAGGGATTACCA	+
10	GAM4426-A	GAAGTTTGAAGCCTGTTGTTCA	+
11	GAM281-A	CACTGCACTCCAGCCTGGGCAA	
12	GAM7553-A	TAGGTAGTTTCCTGTTGTTGGG	+
13	GAM5385-A	TCACAGTGAACCGGTCTCTTTC	+
14	GAM2608-A	TAAGGTGCATCTAGTGCAGTTA	
15	GAM1032-A	CTAGACTGAAGCTCCTTGAGGA	+
16	GAM3431-A	TAATACTGCCGGGTAATGATGG	
17	GAM7933-A	TAGCAGCACATAATGGTTTGAA	
18	GAM3298-A	AAAGTGCTCATAGTGCAGGTAG	+
19	GAM7080-A	TTTCCACAGCGGCCAATTCTTC	+
20	GAM895-A	AGCTGCCAGTTGAAGAACATTT	
21	GAM3770-A	AAGTTAAGAGCTCCAGGCCTG	
22	GAM337162-A	ACTGCACTCCAGCCTGGGCAAC	+
23	GAM8678-A	GTGTTCCAGGAAGTCGTCTTGA	
24	GAM2033-A	TCAAGCTCATTCTCTAACCTC	
25	GAM7776-A	CATTGCACTCCAGCCTGGGCAA	+
26	GAM8145-A	ACATGATCTCCTCACTCTAGGA	
27	GAM25-A	AATTGCTTGAACCCAGGAAGTG	+
28	GAM7352-A	TGTTTAAGTAGCTTATTTATCT	
29	GAM337624-A	TCTAAGAGAAAGGAAGTTCAGA	+
30	GAM1479-A	GAAGGCAGTAGGTTGTATAGTT	+
31	GAM2270-A	ATCACATTGCCAGTGATTACCC	+
32	GAM7591-A	TTGGAGTAATTCAGTATAGGTT	+
33	GAM8285-A	AGTAGACAGTGGCAACATAGTC	
34	GAM6773-A	CTAGCCTGTTTGTCTCACCCC	+
35	GAM336818-A	TGAGGTGGGATCCCGAGGCC	+
36	GAM336487-A	TGGCTAGGTAAGGGAAG	+
37	GAM337620-A	AATCATCATTATTTGAAGTTTA	+
38	GAM336809-A	TAAGGCATTTTTATGGT	+
39	GAM5346-A	GCTGTTGTTAAGGGCACTTGGG	
40	GAM8554-A	TTCATGGGAGCAGGTGGTACAG	
41	GAM2701-A	ACTGCACTCCAGTCTGGGTGAC	
42	GAM7957-A	TCACTGCAACCTCTGCCTCCCG	
43	GAM391-A	CAGATCACATCCATCCGTCACC	
44	GAM6633-A	GCACTCAAGCCTGGGTTACAGA	
45	GAM19	AGAGAGTGGCAGGTCTGTTCTT	
46	GAM8358-A	GATGAGGCAGCACTTGGG	
47	GAM3229-A	TGAGGTGGGAGAATTGCTTGAA	
48	GAM7052-A	CATGTAATCCCAGCTACTCAGG	
49	GAM3027-A (mmu-MIR-29c)	TAGCACCATTTGAAATCGGTTA	+
50	GAM21 (mmu-MIR-130b)	CAGTGCAATGATGAAAGGGCAT	+
51	GAM oligonucleotide(mmu-MIR-30e)	TGTAAACATCCTTGACTGGAAG	+

FIG. 23A



Chr 9

FIG. 23B

**N2**

```
5' --- G A CAGT C--- G C--- --- CC
3' CCC TG GGAA GGC GGGATT TC CAGGG CCCCTT \
   GGG AC CCTT CCG CCGTGA AG GTCTT GGGGGA CG
```

**N3**

```
5' AC- TA ACA --- - --- AG
3' CTC CTGTTTGC GCATA GGC GTG AAGG OGCG T
   GGG GACAGACG TGTGT CCG CGC TTCC GCGG G
   CAC -- GAC AAGG C TGGG CT
```

**MIR23**

```
5' -- - C GTGACT T
3' ACC TAGGGACCGT AC ACTAAA A
   AT T - ATTAGA
```

**GAM22**

```
5' GGTCTG CACT ----- T A ACA -- G- -GG
3' CCACT GCGT GCA GAT GG GA GGT GCATCT C TAGCT CTTCTTT A
   A CC-- ATTTATTCC - A GG- CT A GA CCACC ACA
```

**GAM16**

```
5' CTCT AACTGAGGTGCAGAGCTTAGCTG GTGAACAG TGG T
3' GAGA TCCAAGTCTTGAATCGGT CACTTGTT GCC T
   AG-- GA-- TC-- T
```

**N4**

```
5' GGA G AGCCGC G A TT G
3' TG CA TTAAGTTGG TG GGCAG GGCG GCT A
   GC GT GGTTCGACT AC TCCTC CCGC CGG C
   ----- G GAC--- G G -- G
```

**NO**

```
5' GGTCAAATGTATTGAAAGTTGCAAAAATTCTTCTTACAAA
3' AAACATAAACCAATGCATCACCTAAGTCGTGTGAAATCA
```

**N6**

```
5' TG -- C -- GG T G T
3' GGTG A GGGGG GGGG CG GC TTCGGAG AGC C
   CTGAC T TGTCT TCTC GT CG GGTCTT TTG C
   GT TA C AA GG C G T
```

**MIR24**

```
5' G G A TA TCTCAT \
3' CTCCT GT CCT CTGAGCTGA TCAGT \
   A A C C- CACATT
```

**N7**

```
5' - AT T AAA AG ---- - - T
3' TAGC AGCT TGTG ACGC GCCTG TACA GCC TG C G
   GTCG TCGG ACAC TCGG CCGAC GTGT CGG AC G G
   C C- - AC- GA GCAC T T T
```

FIG. 23C

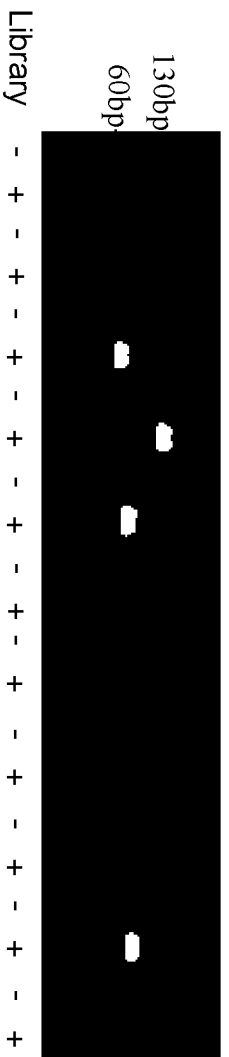




FIG. 24C

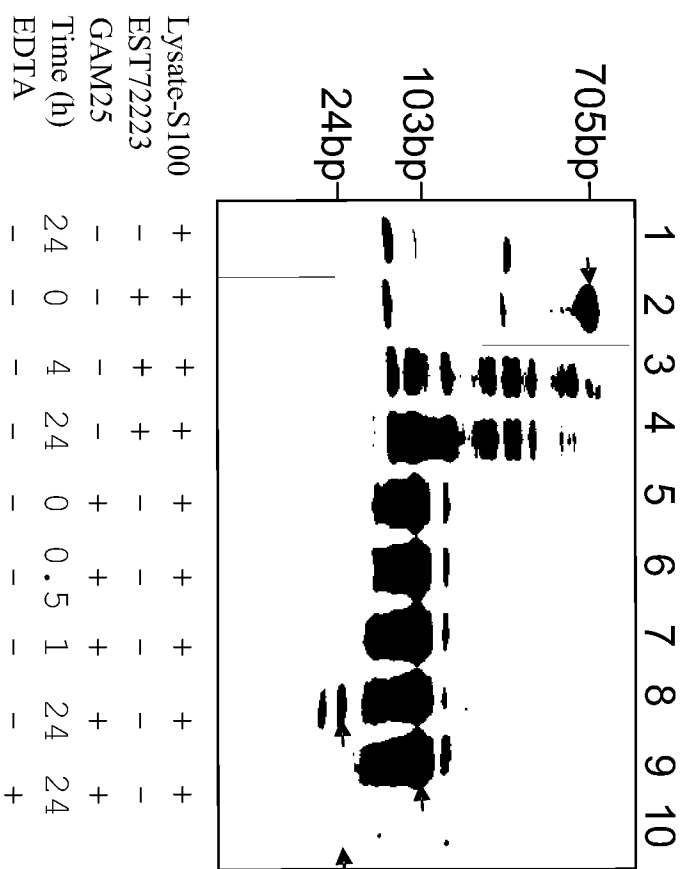


FIG. 24D

